



## INTER-OFFICE COMMUNICATION

Date: March 18, 2016  
To: Executive-Corporate Planning Committee  
From: Michael R. Crosby, Senior Vice President, Nuclear Energy  
Subject: V. C. Summer Nuclear Station – Units 2 & 3  
Executive Session – Board Materials

Attached please find the following information for our joint meeting with SCANA on March 21, 2016. These materials are provided for information only and do not require action by the Board:

- Project Schedule – Summary of Substantial Completion Delays
- SCANA – BIO Information – New Nuclear Project Management
- SCANA – BIO Information – Board of Directors
- Santee Cooper – Draft Concerns with Consortium and EPC Management
- Santee Cooper – Draft Recommendations to SCANA
- SCANA – Response to Recommendations

If you have any questions, please do not hesitate to call.

Attachments

# Project Schedule



## Summary of Substantial Completion Delays

		2016				2017				2018				2019				2020			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unit 2	Original EPC – May 2008																				
	EPC – COL Delay – July 2012																				
	Module Delay – June 2013																				
	Rebaselined Schedule – August 2014																				
	EPC – October 2015 Amendment																				
Unit 3	Original EPC – May 2008																				
	EPC – COL Delay – July 2012																				
	Module Delay – June 2013																				
	Rebaselined Schedule – August 2014																				
	EPC – October 2015 Amendment																				

**Stephen A. Byrne**

*President, Generation and Transmission and Chief Operating Officer  
South Carolina Electric & Gas Company  
Executive Vice President, SCANA*

Stephen Byrne joined SCANA in 1995 and has more than 30 years of experience in the utility industry. He has served as SCE&G's chief nuclear officer and executive vice president for generation. As president of SCE&G generation and chief operating officer of SCE&G, Byrne is responsible for a diversified fleet of generation, including SCE&G's plans to construct two new nuclear plants, as well as demand side management, system control and transmission planning and compliance. Prior to joining SCANA he obtained a Nuclear Regulatory Commission Senior Reactor Operator's License while working for a utility in Ohio.

Byrne serves on the National Academy for Nuclear Training Accrediting Board, South Carolina Governor's Nuclear Advisory Council, the University of South Carolina College of Engineering & Computing Dean's Advisory Board, Westinghouse Quality Fuels Council, Savannah River National Lab Advisory Board and the United Way of the Midlands Community Impact Council. He is the current president of the Carolinas Virginia Nuclear Power Associates, Inc. Decommissioning Project and chairman of the nuclear industry's New Plant Oversight Committee.

A native of West Hartlepool, England, Byrne has a Bachelor of Science degree in engineering from Wayne State University.



**Jeffrey B. Archie**  
*Senior Vice President and Chief Nuclear Officer*  
*South Carolina Electric & Gas Company*

Jeff Archie joined SCE&G in 1978 and began his career at Virgil C. Summer Nuclear Station, just a few miles from where he grew up. He's been in the nuclear industry for more than 30 years. Throughout his tenure at SCE&G, he has held several managerial positions with increasing leadership responsibilities to include general manager, then vice president of nuclear plant operations where his duties included the overall leadership of the V.C. Summer Station's operations, engineering, training and support organizations.

Archie was appointed to senior vice president and chief nuclear officer in May 2010. He is responsible for all nuclear matters, including the day-to-day management of nuclear operations, as well as the overall leadership and strategic direction for existing nuclear operations and new nuclear construction for SCE&G.

As a supporter of community organizations, Archie serves on the Midlands Technical College QuickJobs Advisory Committee, the American Red Cross Regional Advisory Council – Palmetto SC Region, the Palmetto Conservation Foundation Board and the University of South Carolina Parent's Advisory Council. He is a senior advisor to the Liberty Fellowship.

Archie is also a member of the Institute of Nuclear Power Operations Executive Advisory Group, the Nuclear Energy Institute Nuclear Strategic Issues Advisory Committee, the Nuclear Energy Institute Workforce Steering Committee and the University of South Carolina Mechanical Engineering Industrial Advisory Board.

He is a native of Jenkinsville, South Carolina and a graduate of the University of South Carolina, where he earned a Bachelor of Science degree in Mechanical Engineering in 1981.





**Ronald A. Jones**

Vice President, New Nuclear Operations  
South Carolina Electric & Gas Co.

Ron Jones is Vice President, New Nuclear Operations for Units 2 and 3 at SCE&G's V. C. Summer nuclear station. He leads the organization responsible for operational readiness and construction of the two new AP1000 nuclear power plants. Jones joined SCE&G and was named to this position in July 2012.

Jones retired from a 32 year career with Duke Energy in December 2011. He most recently served as Senior Vice President of Nuclear Development for Duke Energy. He was named to this position in December 2010.

Previously, Jones served as Senior Vice President of Nuclear Operations for Duke Energy, from 2005 through 2010. During that period, he provided oversight for the safe and reliable operation of Duke Energy-operated nuclear stations – Catawba, McGuire and Oconee. He also held responsibility for corporate engineering and plant support groups.

Jones has more than 35 years experience in the nuclear field. He joined Duke Power in 1980 as an engineer at Catawba Nuclear Station. He received his senior reactor operator license for Catawba Nuclear Station from the U.S. Nuclear Regulatory Commission in 1987. Jones held various leadership positions at Catawba, McGuire and Oconee Nuclear stations. After a series of promotions, Jones was named as the Vice President of Oconee Nuclear Station in 2002 and subsequently he assumed the role of Senior Vice President of Nuclear Operations in 2005.

Jones is a member of several organizations related to the industry including the American Nuclear Society, Institute of Electrical and Electronic Engineers and NEI New Plant Task Force. He chairs the NEI Digital I&C Working Group and also chairs the EPRI Advanced Nuclear Technology Action Plan Committee. He is a member of the EPRI Nuclear Power Council Executive Committee. He is also past chairman and past member of the Pressurized Water Reactors Owners Group Executive Management Group and Executive Committee; and past chairman of the Carolinas Nuclear Cluster. He also served as a member of several Nuclear Energy Institute (NEI) industry groups: Workforce Working Group, Small Modular Reactor Working Group, New Plant Oversight Committee and Nuclear Security Working Group.

He previously chaired the APOG, an industry group formed to collaborate on and develop generic products for AP1000 new nuclear projects and was a member of the NuStart Energy Management Committee. Jones has served as a member of the Nuclear Safety Review Boards for both the Tennessee Valley Authority and Progress Energy. He is a graduate of the INPO Senior Nuclear Plant Management program. He is also a past member of the board of directors for Junior Achievement of the Central Carolinas in Charlotte, NC and the Lake Norman Charter School in Huntersville, NC.

The Salisbury, Md., native graduated from Virginia Tech in Blacksburg, Va., with a Bachelor of Science degree in Electrical Engineering in 1980.

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**Alan D. Torres**  
**General Manager of Nuclear Construction New Nuclear Deployment**  
**V.C. Summer Nuclear Station Units 2 and 3**  
**South Carolina Electric & Gas Co.**

Alan D. Torres is the General Manager of Nuclear Construction for New Nuclear Deployment Unit's 2 and 3 at SCE&G's V.C. Summer nuclear station. Alan was appointed to this position in 2007. He manages the oversight of the EPC contract and construction activities for VC Summer Units 2 and 3.

Torres has more than 40 years with SCE&G at VC Summer Unit 1 and Units 2 and 3 in the nuclear construction field. He joined SEC&G in 1976 working with Construction oversight. He has held various supervisor and manager positions with SCE&G. Torres worked as an Inspection Supervisor, QC Manager, and a QA Supervisor. He received his senior reactor operator certification in 1996. Torres performed qualification for Shift Engineer and was an Outage and Work Control Manager with SCE&G.

Torres is a graduate of Limestone College where he received his Bachelor degree in Business and his Associate degree in Architectural Engineering at Midlands Technical College.

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**Robert Bradford (Brad) Stokes**  
**General Manager, Engineering Services, New Nuclear Deployment**  
**V.C. Summer Nuclear Station Units 2 and 3**  
**South Carolina Electric & Gas Co.**

A graduate of the Clemson University with an undergraduate degree in Mechanical Engineering, Brad began his service with SCE&G in 1990 after working for seven years in the Nuclear Engineering Department at Charleston Naval Shipyard. During his time at SCE&G he has worked in engineering and supervisory positions in Plant Support Engineering, supervisor in engineering training and supervision and management positions in Design Engineering. A Certified Senior Reactor Operator and registered professional engineer, he now is a part of the management staff which is in the process of licensing and constructing two new nuclear plants at SCE&G's V.C. Summer Nuclear Station.

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**OFFICIAL USE ONLY – SENSITIVE INTERNAL INFORMATION****April R. Rice****Manager, Nuclear Licensing****V.C. Summer Nuclear Station Units 2 and 3  
South Carolina Electric & Gas Co.**

April Rice has over 30 years of experience in the nuclear industry primarily in licensing and engineering. She is currently the Licensing Manager for V. C. Summer Units 2 and 3 and is responsible for activities supporting the licensing of the two new AP 1000 plants. Prior to this, April served as the Environmental Project Manager responsible for oversight of the environmental review team and development of the Environmental Report for the project.

Before joining the New Nuclear Deployment team, April worked at V. C. Summer Unit 1 in Licensing, Plant Support Engineering and Performance Improvement. She received an SRO Certification for Unit 1 in 1995. Prior to joining South Carolina Electric & Gas, April was a Senior Engineer with Impell Corporation. April has a Bachelor of Science degree in Nuclear Engineering from N. C. State University and is a registered Professional Engineer in the State of South Carolina.

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**David Lavigne**  
General Manager  
Operational Readiness

David Lavigne is the General Manager, Operational Readiness for South Carolina Electric and Gas New Nuclear Deployment in Jenkinsville, South Carolina.

South Carolina Electric and Gas is a wholly owned subsidiary of SCANA Corporation which delivers electric and gas services to South Carolina, North Carolina and Georgia.

Mr. Lavigne became General Manager, Operational Readiness in April 2010. In this position, he is responsible for assuring the VC Summer AP1000 units successfully transition from the construction to the operational phase. This includes the areas of program and procedure development, staffing of the new units, oversight of the initial test program, and all other matters related to plant operational readiness. Previous positions include management of the VC Summer Unit 1 training programs, quality systems, regulatory support, station nuclear security, materials and procurement and nuclear records and document control functions. Mr. Lavigne holds a Senior Reactor Operator Certification at VC Summer, Unit 1.

Before joining SCE&G in 1977, he spent six years in the nuclear submarine force with the US Navy. A graduate of the University of South Carolina, he has a Bachelors degree in Management Science.



**Kevin Marsh**  
*Chairman and Chief Executive Officer*  
*SCANA Corporation*

Kevin Marsh joined South Carolina Electric & Gas Company (SCE&G), the principal subsidiary of SCANA Corporation, in 1984 as group manager of technical accounting and was named vice president and controller in 1989. Since then he has served in the capacity of vice president of corporate planning of SCE&G and vice president of finance, treasurer and controller of SCANA Corporation. In 1996, Marsh was named vice president and chief financial officer (CFO) of SCANA and became senior vice president in 1998.

In addition to his duties as SCANA's CFO, from October 2001 to March 2003, he served as president and chief operating officer of PSNC Energy, the company's natural gas distribution company headquartered in Gastonia, North Carolina. He became president of SCE&G in 2006 and became president and chief operating officer (COO) of SCANA Corporation in January 2011. He assumed responsibilities as chairman and CEO in December 2011. Prior to his career at SCANA he worked at Deloitte & Touche Certified Public Accountants in Columbia, South Carolina for seven years.

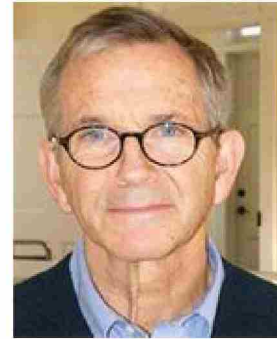
Marsh serves on the board of Epworth Children's Home, Citizens for Sound Conservation, the Institute of Nuclear Power Operations (INPO), the Nuclear Energy Institute (NEI) and the Edison Electric Institute (EEI). He is a past board member of First Citizens Bancorporation of South Carolina, Palmetto Place Children's Emergency Shelter, Junior Achievement of South Carolina, and Sharing God's Love emergency support organization. Kevin and his wife are members of Grace United Methodist Church in Columbia, SC. He has two daughters and two grandchildren.

Marsh is a native of Atlanta, Georgia, and earned a Bachelors of Business Administration degree in Accounting from the University of Georgia in Athens.

**Harold C. Stowe (Pawleys Island, SC)**

Director since 1999

- Managing Member of Stowe-Monier Management, LLC a private investment company, since July 2007
- Interim Dean of the Wall College of Business at Coastal Carolina University (2006-2007)
- President of Canal Holdings, LLC (Forest products) in Conway, SC (1997-2005)
- Board of Harris Teeter Supermarkets, Inc., in Charlotte, NC (1998-2013)
- Executive at Springs Industries in Fort Mill and NCNB in Charlotte
- Served as chairman of Conway Hospital and Myrtle Beach Air Base Redevelopment Authority
- Bachelor's degree in commerce – Washington & Lee University (1968)
- MBA – Harvard Business School (1970)

**Gregory E. Aliff (Reston, VA)**

Director since October 2015

- Retired CPA from Deloitte & Touche LLP (Retired 2015)
- Partner for 28 years
- Vice Chairman and Sr. Partner of Energy Resources, Deloitte LLP
- Leader of Deloitte's Energy and Natural Resources Management Services
- Co-Author of annual industry reference book *Accounting for Public Utilities*
- Director of California Water Service Group, Inc (San Jose, CA)
- Director of Grid Alternatives (Oakland, CA)
- B.S. in accounting and MBA from Virginia Tech

**Sharon A. Decker (Mill Spring, NC)**

Director since October 2015

- Sr Vice President of Strategic Initiatives for Tryon International Equestrian Center (Mill Spring, NC)
- Previously served on SCANA Board 2005-2012
- Resigned Board seat to serve as Secretary of Commerce for NC (2013-2014)
- Also serves on Board of Coca Cola Bottling Consolidated and UNC-Charlotte
- Duke Energy (1980-1997)
  - Corporate Vice President
  - Worked in marketing, community relations, customer service
  - Helped establish 24-hr customer service center
- Presbyterian lay pastor
- B.S. Home Economics and Consumer Services, UNC-Greensboro (1979)
- Master of Divinity, Gardner Webb





**James M. Micali (Boston, MA)**

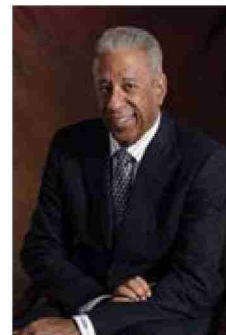
Director since 2007

- Counsel to law firm Ogletree Deakins, LLC in Greenville (2008-2011)
- Chairman and President of Michelin North America in Greenville (1996-2008)
- Since 2008 Sr. Advisor & limited partner of Azalea Fund III of Azalea Capital LLC (private equity firm)
- Served as director of Sonoco Products in Hartsville (since 2003) and Lead Director since 2012
- Serves on board of American Tire Distributors Holding, Inc (Charlotte)
- Board of Lafarge North America (2004-2006)
- Chairman of SC Chamber of Commerce (2008)
- BA – Lake Forrest College (1969)
- JD – Boston College (1973)

**Maceo K. Sloan (Durham, NC)**

Director since 1997

- Chairman, President & CEO – Sloan Financial Group, Inc. (financial holding company)
- Chairman, CEO, Chief Investment Officer – NCM Capital Management Group, Inc. (one of nation's top minority-owned institutional money managers)
- Chairman, CEO, Chief Investment Officer – NCM Capital Advisers, Inc.
- Principal Officer of NCM Capital Investment Trust since 2007
- Chairman of College Retirement Equities Fund (2009-2012), member since 1991
- Served as Chairman of Board of M&F Bancorp, Inc. and director of its subsidiary Mechanics and Farmers Bank (2005-2008)
- BA – Morehouse College
- MBA – Georgia State University
- JD – North Carolina Central University

**James A. Bennett (Columbia, SC)**

Director since 1997

- First Citizens Bank & Trust – Central Area Executive (since 2015)
- First Citizens - Exec. VP and Director of Public Affairs (2002-2015)
- SC Community Bank – President & CEO (2000-2002)
- Serves on boards of Palmetto Health Alliance, Claflin University and the Knight Foundation
- First African-American to receive Outstanding Young Banker Award from SC Bankers Association
- BA – University of South Carolina





**D. Maybank Hagood (Charleston, SC)**

Director since 1999

- President & CEO of Southern Diversified Distributors, Inc (since 2003), Chairman (Since 2012)
- Parent company of William M. Bird and Company, Southern Tile Distributors, and TranSouth Logistics
- CEO of William M. Bird and Company, wholesale distributor of floor covering materials (since 2003)
- President of William M. Bird and Company (1993-2009)
- North Carolina National Bank – Commercial Lending Officer (1983-1987)
- Citadel School of Business Board of Advisors
- BA in English and MBA from University of Virginia

**Lynne M. Miller (Great Falls, VA)**

Director since 1997

- Chair of SCANA's Nuclear Oversight Committee
- Co-Founder of Environmental Strategies Corporation (Reston, VA environmental consulting firm) in 1986, President (1986-1995), CEO (1995-2003)
- Company was acquired by Quanta Capital Holdings and name changed to Environmental Strategies Consulting, LLC. CEO (2003-2004)
- President of Quanta Technical Services (2005-2006) before retiring
- Director of Adams National Bank in Washington, DC (1998-2008)
- BS in Biology – Wellesley College
- MS in Zoology – Rutgers University

**John F.A.V. Cecil (Asheville, NC)**

Director since 2013

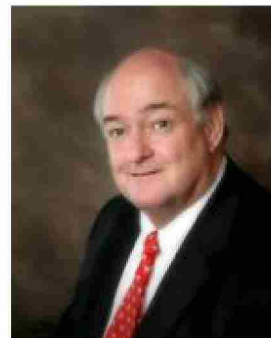
- President of Biltmore Farms, LLC, 4<sup>th</sup> generation family owned business with focus on sustainable community development (homes, hotels, apartments, etc.)
- Serves on Wells Fargo Bank's Western North Carolina Regional Advisory Board
- NC Economic Development Board
- Chair of Institute of Emerging Issues at NC State, focused on issues affecting NC growth and prosperity
- BA in Interdisciplinary Studies – UNC
- Masters in Management – The American Graduate School of International Management



**James W. Roquemore (Orangeburg, SC)**

Director since 2007

- CEO and Chairman – Patten Seed Company
- General Manager – Super-Sod/Carolina
- Director of South State Bank
- Past President of Palmetto Agribusiness Council
- Attended Valdosta State College



**Alfredo Trujillo (Atlanta, GA)**

Director since 2013

- President & COO – The Georgia Tech Foundation (since 2013)
- Self-employed investment fund advisor (since 2007)
- CEO – Recall Corporation, a global information management company (2002-2007)
- President – Recall Corporation (2000-2002)
- Managing Director, Asia Pacific – Recall Corporation (1997-2000)
- Board Director for Haverty's Furniture (2003-Present)
- Board Director for In Zone Brands (2010-Present)
- BS in Aerospace Engineering – Georgia Tech (1981)
- MS in Applied Mechanics – Stanford (1985)
- MBA – Stanford (1988)



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## **V. C. Summer - Units 2 & 3**

### **Concerns with Consortium and EPC Management**

The SCE&G oversight staff lacks the experience, and in some cases the support of upper management, to hold the Consortium accountable for the work sold under the EPC Agreement. Due to the AP1000 being a first-of-a-kind design and the Consortium's inexperience with delivery of large scale EPC projects - holding the Consortium accountable for the work is a very difficult task.

Following are concerns and examples that support a Santee Cooper opinion that SCE&G needs to on-board professional EPC management support for the VC Summer Project. Professional EPC management support could help the Owners' hold the Consortium accountable for the work by identifying areas for improvement and making practitioner recommendations to resolve issues:

- **Westinghouse's (WEC) first attempt at an EPC package delivery**
  - The AP1000 units (Chinese & domestic) are WEC's first attempt at managing and delivering integrated EPC new build projects.
  - WEC and its consortium partners (The Shaw Group, Chicago Bridge & Iron, and now Fluor) have not fully completed and integrated the engineering, procurement and construction plans and schedules necessary to deliver the Project.
  - To date, the Consortium has not performed well as a team.
    - WEC - The Shaw Group (basemat design compliance & module delivery issues)
    - WEC - CB&I (commercial issues resulted in an untenable relationship)
    - WEC - Fluor (success to be determined)
- **Commercial motivation**
  - Consortium partners have not been commercially motivated to meet each other's needs - directly affecting the success and outcome of the Project.
  - With the WEC acquisition of Stone & Webster and the addition

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of Fluor as the construction manager, the Consortium is now vertically integrated. Commercial motivation remains a concern.

- Evidence already exists that WEC is not properly funding Fluor to allow the addition of needed contractor employees.

- **Consortium transparency**

- Consortium's project management has not provided the appropriate level of transparency on EPC integration, progress and performance.
  - Forecasts for manpower, productivity, and schedule durations do not have a firm basis.
  - Basis changes as schedules develop.

- **WEC's engineering**

- WEC's design engineering has been a significant impediment to the Project from the onset.
- WEC has not reported accurately on the issue.
  - Issue affects the project critical path (nuclear island).
  - Issue affects overall project integration - all planning, scheduling, procurement and construction for project delivery.
- WEC engineering is estimated to be ~ 85% complete.
  - Most recent "engineering complete" target was Apr 30, 2015
  - 520 engineers assigned to AP1000 design (Chinese & domestic)
    - 40 engineers are located at VC Summer

- **Stone & Webster's (S&W) engineering**

- S&W's engineering is anticipated to be the next major impediment to schedule adherence if not completed ahead of need dates.
- S&W reporting has been more accurate but issue needs increased



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focus from Consortium project management.

- Issue affects procurement and installation of plant commodities.
  - Due to the small footprint of the AP1000 nuclear island design, commodity installation has proven to be a significant challenge on the Chinese projects.
  - Procurement, planning and scheduling of commodity installation will be critical to maintaining schedule once the nuclear island structures are in place and equipment set.
- S&W engineering is estimated to ~ 83% complete.
  - Most recent engineering complete target was Aug 31, 2015
  - 270 engineers assigned to AP1000 site specific scope (domestic)
    - 184 engineers located at VC Summer
- WEC engineering design change
  - Volumes of change paper have been generated on the Project affecting:
    - Critical path material deliveries
      - Structural module and shield building wall panel fabrication has been severely impacted.
    - Site construction
      - Issued civil design is often not constructible requiring change modifications, impedes performance and a source of numerous delays
      - Constructability reviews are not sufficiently leading the construction effort to minimize impacts
    - Construction work packages
      - Drawings are not being updated to reflect change paper making work packages difficult to manage,

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**construction productivity factor has been severely impacted**

- **WEC is attempting to resolve design change as emergent work.**
  - **Coordination between design engineering, field engineering and construction is not adequate.**
  - **Work-off plan and staffing are not adequate.**
- **Project planning, scheduling and execution**
  - **EPC schedules are not completed, resource loaded, and fully integrated to coordinate overall Project delivery.**
  - **Plans and schedules contain unreasonable assumptions and do not reflect actual project circumstances making schedule adherence unrealistic.**
    - **Unit rates for commodity installation are understated.**
      - **Contractor takes longer than planned to install commodities.**
    - **Project critical path does not contain float. The current schedule contains negative float with the project completion dates artificially constrained.**
      - **Critical path material deliveries (structural modules and shield building wall panels) do not support construction need dates.**
  - **Project operates on a 6 -12 month “look-ahead” schedule**
    - **Accuracy of schedule is about 1 - 2 weeks.**
    - **Missed milestones push-out and are rarely recovered**
  - **Initial Startup & Test Program is in the early stages of development. System turnover boundaries are under development along with test planning and scheduling. Detailed planning is required to ensure project schedule is allotted sufficient time to test and startup.**
  - **Increased focus on overall project integration required.**

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## **V. C. Summer - Units 2 & 3**

### **Santee Cooper Recommendations**

As changes are occurring to the ownership and management of the Consortium, the Owners have an opportunity to make significant correction to the course of the nuclear construction Project. During the transition, there is a window for the Owners to impose Project changes designed to offset current critical path material delays and poor construction performance attributed to inadequate project integration and management, incomplete engineering, and rework associated with ongoing design alteration.

Over the past seven years, the Consortium's inability to coordinate itself and complete the engineering, procurement, and construction work necessary to deliver this project on a schedule has come at a high cost to the Owners. For each month of project delay, Santee Cooper estimates its share of project cost to be approximately \$35 million.<sup>1</sup> New project management and leadership are needed to overcome these challenges.

The engineering and procurement challenges that continue to face Westinghouse (WEC) have significant impacts upon the Owners. In 2015, only 3.7% direct craft progress (0.31% per month) was earned towards completion of the combined units. The year closed with overall direct craft construction at 18.7% complete. With 81% of the work to go, the monthly construction progress must increase to around 2.5% if contract dates are to be achieved. Failure to realize a significant and sustained increase on this metric over the next six months will invariably result in more project delay.

Considering the Consortium's record, nearly three years of delays, and the risk associated with not achieving the production tax credits, it is incumbent upon the Owners to employ increased and magnified oversight to ensure that

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<sup>1</sup> Based on a Santee Cooper internal estimate completed Nov 2014 for a 27 month delay on Unit 2 (delay from March 2017 to June 2019) and a 25 month delay on Unit 3 (delay from May 2018 to June 2020). Estimate includes added costs associated with fuel & replacement power, owners cost, and debt service.

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WEC and Fluor will properly coordinate efforts to resolve the challenges facing the Project. Intrusive verification of the work by trained project management professionals would help hold the Consortium accountable, and provide more timely and accurate Project status information for the Owners going forward. For this purpose, Santee Cooper makes the following recommendations:

**1. Construction Milestone Payment Schedule**

Development of the construction milestone payment schedule is vitally important to the Owners to drive schedule adherence and Consortium accountability, to be accomplished in the following way:

- Advise all parties that future payments for work will be made according to the milestone payment schedule without exception
- For avoidance of confusion, payment for construction work will not occur until satisfactory completion of each milestone
- Retain a third party engineering, procurement, and construction firm with personnel experienced in large construction project scheduling and controls by **March 31, 2016** to advise and assist Owners with the development of an effective milestone payment schedule.

**2. Project Evaluation and Assessment by Owners**

- The Owners will take steps to obtain stakeholder and interested party assessments with observations and recommendations on issues impacting all Project functional areas including: project management, engineering and licensing, procurement, construction and project controls, and startup by **March 15, 2016**.
- Owners' management will complete a detailed review of the assessments and develop an action plan and schedule to implement valid recommendations by **April 30, 2016**.



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**3. Quarterly Meetings with Toshiba / WEC / Fluor**

- Schedule and hold quarterly meetings with Toshiba, WEC, and Fluor management to gauge executive commitment to Project and to discuss progress and issues. Owners' executive management will develop and publish a meeting agenda one week in advance of each quarterly meeting. Hold first meeting prior to Owners joint meeting on **March 21, 2016**.

**4. Evaluation of Fixed Price Option**

- Evaluate Fixed Price Option on a schedule that will support a Public Service Commission (PSC) ruling by **October 1, 2016**. This schedule will allow time for the Santee Cooper Board to make a determination following the PSC ruling and prior to the November 1, 2016 deadline.

**5. Professional Oversight of EPC Agreement**

- EPC manager: Retain EPC managerial and project controls expertise responsible for independently measuring and analyzing contract performance and for making recommendations to best influence Consortium behavior, accountability and the successful outcome of the Project. On-board EPC managerial staff by **June 15, 2016**.

**There are multiple ways to fulfill this need. The following suggestions are offered for discussion:**

- **Suggestion 1: SCE&G hire an executive EPC professional, reporting directly to the SCE&G CEO but also answering to the Santee Cooper CEO, responsible for this work. The new executive would be a career professional with extensive experience in complex, new-build generation projects and be responsible for hiring other EPC and project controls expertise as needed. The new executive's compensation would be based solely on project performance and would include performance based incentives and penalties to promote effectiveness of leadership. The CEOs would meet at a**

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minimum every other week to receive a report from the EPC professional.

- **Suggestion 2: Retain a qualified EPC firm, including executive leadership and support personnel, to provide the needed services. EPC executive to report to Owners' CEOs in a manner similar to above. Contract for EPC firm should include performance based incentives to promote effectiveness of the firm.**

- **Engineering: EPC manager to obtain clear visibility of the maturity and completeness of all project engineering and make practitioner recommendations to best influence the Consortium's performance. Work should begin with analyzing the following:**
  - WEC engineering scope
  - Stone & Webster engineering scope
  - Design constructability / change issues

Provide initial report by **Aug 31, 2016.**

- **Procurement: EPC manager to obtain clear visibility of all project procurement issues including critical path material deliveries, analyze supply-chain performance, and make practitioner recommendations that would best influence delivery of material by scheduled need dates. Work should begin with analyzing the following:**
  - Structural modules – domestic supply
  - Structural modules – foreign supply
  - Shield building wall panels
  - Shield building - air inlet, tension ring, roof structure
  - General procurement issues – equipment and commodities

Provide initial report by **Sep 30, 2016.**

- **Construction: EPC manager to independently review and assess construction performance by plant functional areas including productivity factors, labor ratios and all issues affecting direct craft progress. EPC**

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manager to make practitioner recommendations that would best influence the monthly progress rate needed to achieve contract completion dates. Provide initial report by [Sep 30, 2016](#).

- **Project Schedule:** EPC manager to independently review and assess the achievability of the Project Schedule including integration of all engineering, procurement, and construction inputs, assumptions, constraints and logic ties by [Sep 30, 2016](#).
- **Project Metrics:** EPC manager to evaluate current project metrics and work with Consortium to develop accurate and consistent industry standard metrics to track actual vs planned completion of each generating unit by functional area and major plant system. EPC manager to develop an executive level dashboard for monthly tracking of all key project metrics by [Oct 15, 2016](#).
- **Quarterly Meetings with Toshiba / WEC / Fluor:** EPC manager to attend meetings and provide independent assessment of Consortium's progress towards resolving the issues that face the Project beginning [Q4 2016](#).



**From:** MARSH, KEVIN B <KMARSH@scana.com>  
**Sent:** Friday, March 18, 2016 8:26 AM  
**To:** Carter, Lonnie; llord@nexsenpruet.com  
**Cc:** Harold Stowe (cstowe@sc.rr.com)  
**Subject:** [EXTERNAL SENDER] Santee Board Meeting

Lonnie and Leighton,

Our team is looking forward to meeting with the Santee board next Monday. It appears we will have seven of the SCANA directors in attendance at the meeting. Thanks for taking time last week to share your thoughts and concerns regarding the new nuclear project on behalf of your board. Our presentations will address your issues and provide your directors with valuable information on the new nuclear construction activities to include regulatory oversight, challenges to date, the transition to Fluor and a discussion of what we are doing differently going forward.

We appreciate the effort behind the recommendations provided to us regarding your views on project issues. We have carefully considered your concerns and, as we discussed in our meeting last week, we appear to be in alignment on the first four. We agree in principle with the concern expressed in Item 5 related to additional oversight of the project and have a plan of action the we believe will address the issue appropriately. Our first step in this regard is to staff a Construction Oversight Board. This board would be staffed with individuals from both SCANA and Santee in addition to an appropriate number of experienced professionals from disciplines applicable to the overall project. For example, personnel with regulatory, NRC, EPC contract, large project experience would be considered and recruited for service on the oversight board. As partners we will work with your team to identify the type and number of oversight board members. Both the Southern Company and TVA utilize these boards and have found them to be productive. As required by project scope and activities, members could be added or replaced as necessary. This board would report to Lonnie and me on a regular basis. Next we would seek an appropriate number of new experienced EPC, and/or large construction project personnel to add to the new nuclear team. These individuals would be available to assist the current Project Management Office team and site leadership in assessing and addressing issues arising during construction. I am confident that the number and specific type of personnel needed in this capacity will be informed by the work of our teams who are currently summarizing a list of recommendations for the project going forward. We expect these teams to complete their work and provide a report to senior management by the end of April.

Completion of the new nuclear plants successfully and on time is our top priority. We have enjoyed a healthy relationship with Santee for many years and sincerely value your input and thoughts. Likewise, our team has not wavered in its commitment to work with your team to address issues that challenge bringing these important new plants online in the most efficient manner possible. I anticipate a healthy discussion next week.

Sincerely,

Kevin

\*\*\*\*\*

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Ronald B. Clary  
Vice President  
New Nuclear Deployment

September 27, 2012

NND-12-0504

Mr. Thomas E. Sliva  
Westinghouse Electric Company  
Nuclear Power Plants  
1000 Westinghouse Drive, Suite 112  
Cranberry Township, PA 16066

Subject: Status of Structural Modules CA01-CA05 and CA-20

Reference: (1) Engineering, Procurement, and Construction Agreement for AP1000 Nuclear Power Plants, Dated May 23, 2008 – V.C. Summer Units 2 and 3 ("Agreement")  
(2) VSP\_VSG\_002024, "Agreement that is the Basis of Change Order #16," dated August 6, 2012

Action: Provide written status of structural modules fabrication, delivery and installation on a bi-weekly basis beginning no later than October 10, 2012. Review with the Owner the Consortium's documented structural module contingency plans prior to October 19, 2012.

Dear Mr. Sliva:

In accordance with Section IV D of the Final Settlement Agreement (reference 2), the Consortium provided to the Owner a Unit 2 and Unit 3 onsite baseline structural module delivery and installation schedule on August 10, 2012.

The Owner has noted that as of September 25, 2012, the following dates have passed on the Unit 2 baseline schedule, thus the Consortium has not met the applicable deliverable/activity:

	DATE ACTUAL REC'D
August 11, 2012 – ROS Wall Sub-Module CA20_11 (Sub-Assembly 2)(L)	03/06/2013
August 11, 2012 – ROS Wall Sub-Module CA20_24 (Sub-Assembly 3)(L)	10/24/2012
August 11, 2012 – ROS Wall Sub-Module CA20_50 (Sub-Assembly 3)	09/17/2012
August 21, 2012 – Erect Wall Sub-Module CA20_01 (Sub-Assembly 1)(L)	07/17/2012
August 23, 2012 – ROS Wall Sub-Module CA20_13 (Sub-Assembly 2)(L)	11/01/2012
August 23, 2012 – ROS Wall Sub-Module CA20_15 (Sub-Assembly 2)(L)	11/12/2012
August 29, 2012 – ROS Wall Sub-Module CA20_17 (Sub-Assembly 2)(L)	07/18/2013
August 30, 2012 – ROS Floor Sub-Module CA20_35 (Sub-Assembly 1)	09/24/2012
August 30, 2012 – ROS Wall Sub-Module CA20_73 (Sub-Assembly 4)(L)	10/22/2012
August 31, 2012 – ROS Floor Sub-Module CA20_32 (Sub-Assembly 2)	
September 4, 2012 – ROS Floor Sub-Module CA20_74 (Sub-Assembly 2)	
September 6, 2012 – ROS Wall Sub-Module CA01_23 (Sub-Assembly 6)(L)	
September 6, 2012 – U2 – CA20 ROS sub-module CA20_51	

September 27, 2012  
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Page 2 of 3

DATE  
Actual Rec'd

September 7, 2012 – ROS Wall Sub-Module CA20\_71 (Sub-Assembly 4)(L)  
September 7, 2012 – ROS Floor Sub-Module CA20\_66 (Sub-Assembly 4)  
September 10, 2012 – ROS Floor Sub-Module CA20\_33 (Sub-Assembly 2)  
September 10, 2012 – ROS Wall Sub-Module CA20\_27 (Sub-Assembly 4)(L)  
September 12, 2012 – ROS Wall Sub-Module CA20\_18 (Sub-Assembly 3)(L)  
September 13, 2012 – ROS Wall Sub-Module CA20\_72 (Sub-Assembly 4)(L)  
September 14, 2012 – Erect Wall Sub-Module CA20\_07A (Sub-Assembly 1)(L) 03/01/2012  
September 14, 2012 – ROS Wall Sub-Module CA20\_05 (Sub-Assembly 1)(L) 01/17/2013  
September 14, 2012 – ROS Wall Sub-Module CA20\_23 (Sub-Assembly 3)(L)  
September 17, 2012 – ROS Wall Sub-Module CA20\_28 (Sub-Assembly 4)(L)  
September 21, 2012 – U2-CA05-01 – Receive and Inspect Sub-Module at Site (L)  
September 21, 2012 – ROS Wall Sub-Module CA20\_10 (Sub-Assembly 2)(L) 02/19/2013  
September 21, 2012 – ROS Wall Sub-Module CA20\_14 (Sub-Assembly 2)(L) 06/08/2013  
September 21, 2012 – ROS Wall Sub-Module CA20\_16 (Sub-Assembly 2)(L) 07/18/2013  
September 21, 2012 – ROS Wall Sub-Module CA20\_25 (Sub-Assembly 3)(L)  
September 21, 2012 – ROS Wall Sub-Module CA20\_29 (Sub-Assembly 4)(L)  
September 25, 2012 – U2-CA05-04 – Receive and Inspect Sub-Module at Site (L)

Due to on-going concerns, the Owner and Consortium have had a number of discussions regarding structural modules, including a visit to the SMS facility on September 7, 2012 by our senior executives.

Due to the current status of the structural modules, the Owner remains concerned that the late fabrication, delivery and installation of structural modules will impact the Consortium's ability to meet the critical path schedule date of January 28, 2013 (CA20 on-hook date), and eventually to meet the revised Unit 2 Guaranteed Substantial Completion Date (GSCD) and possibly the Unit 3 GSCD. The Owner requests the Consortium continue to provide structural modules status updates during the monthly project review meetings and other status updates as previously agreed. Also, beginning no later than October 10, 2012, provide bi-weekly written status updates on the fabrication, delivery and installation of the structural modules, including information on any structural module issues. Finally, the Owner requests the Consortium review with the Owner the Consortium's documented contingency plans concerning the structural modules prior to October 19, 2012. These contingency plans should include, at a minimum, actions to be taken by the Consortium to meet currently scheduled structural modules CA01-CA05 and CA-20 on-hook dates and installation dates to support the Project schedule.

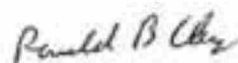
The Consortium, appropriately, has not invoiced the Owner for a number of structural module-related milestones in the Agreement (reference 1). The Owner expects satisfactory completion of structural module-related milestones before the Consortium invoices the Owner for these milestones.



September 27, 2012  
NND-12-0504  
Page 3 of 3

This request should not be construed as a waiver of any rights that Owner may have under the EPC Agreement. Please let me know if you have any further questions.

Sincerely,



Ronald B. Clary  
Vice President  
New Nuclear Deployment

RBC/AAS/ssj

c: Ron Jones – SCE&G  
Carlette Walker – SCE&G  
Alan Torres – SCE&G  
Robert Stokes – SCE&G  
Skip Smith – SCE&G  
Kenneth Browne – SCE&G  
Al Paglia – SCE&G  
Roosevelt Word – SCE&G  
Larry Cunningham – SCE&G  
Al Bynum – SCE&G  
Dave Lavigne – SCE&G  
Andy Barbee – SCE&G  
Marion Cherry – Santee Cooper  
Michael Crosby – Santee Cooper  
JoAnne Hyde – Westinghouse  
Jason Brehm – Westinghouse  
Jeff Coward – Westinghouse  
John Iacovino – Westinghouse  
Susan May – Westinghouse  
William Macecevic – Westinghouse  
William Fox – Shaw S&W  
Fred Pettus – Shaw S&W  
Randy Harrison – Shaw S&W  
David Marcelli – Shaw S&W  
Lucinda Vasbinder – Shaw S&W  
Dale Garrison – Shaw S&W  
Clint Patterson – Shaw S&W  
Ricky Gill – Shaw S&W  
Matthew Byers – Shaw S&W  
VCSNNDCorrespondence@scana.com  
VCSummer2&3ProjectMail@shawgrp.com  
VCSummer2&3Project@westinghouse.com  
DCRM-EDMS@scana.com

**Crosby, Michael**

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**From:** Crosby, Michael  
**Sent:** Friday, January 11, 2013 9:47 PM  
**To:** Carter, Lonnie  
**Cc:** Singletary, R.M.; CHERRY, WILLIAM (WILLIAM.CHERRY@scana.com); Cherry, Marion  
**Subject:** RE: 8K

Lonnie,

RM and I discussed this in detail yesterday ... RM had hoped to get us in for a visit with you today.

Anyway ... here's some detail that you may not know.

At the conclusion of the module meeting (Lake Charles -Wed) ... we had a first nuclear concrete strategy meeting ... led by Steve Byrne.

The following key people were around the table:

Consortium Director -Tom Sliva (Westinghouse)  
 Shaw Nuclear President - Dave Berry  
 Shaw Project Director - Bill Fox  
 Jeff Archie  
 Steve Byrne  
 Alan Torres  
 Marion Cherry  
 Michael Crosby

Steve Byrne seemed very comfortable with the notion of placing first nuclear concrete by the end of the first quarter ... assuming the following pieces fall into place:

1. PAR / LAR ... submitted in a timely manner ... which we are still on track for the end of Jan.
2. PAR (no object ruling that allows licensee to proceed at risk) ... received early Feb.
  - a. Shaw would be in position to complete the remaining rebar work (~ 17 days)
3. SER (safety evaluation report) ... received late Feb / early Mar.
  - a. This step was new (to me) ... prior to this meeting ... the SCE&G licensing team had never discussed the SER during the daily calls that Marion and I attend.
    - i. As I understand ... SCE&G will have to make a formal request for an expedited review ... and early receipt of the SER.
  - b. Steve was confident that with an approved SER in hand ... approval of the LAR is administrative - a matter of time ... as you know the current timeline predicts receipt of the LAR late April.

Jeff Archie / Steve Byrne were scheduled to meet with Victor McCree (Head of Region II, Atlanta) today ... to continue discussions regarding an expedited LAR review process. I have not received feedback on the outcome of this meeting.

However, Jeff has been discussing the issue with Victor (for weeks now) ... and both Jeff and Steve believe they have good support at Region II.

On Monday, Steve and Jeff are scheduled to meet with Glenn Tracy (Director, Office of New Reactors, DC) to convey the importance of this issue and lobby DC support for an expedited review process.



Risk ... per Steve - receipt of the SER drives risk towards zero. I have not pressed him on this yet ... but will after Marion and I complete research on NRC procedure. With that said, Steve was confident ... and as you know grew up on the nuclear side of the fence.

I'm not sure why his licensing team hadn't pitched this before ... we're chasing that as well.

Cost ... obviously, anything we can do to place concrete sooner than later ... only helps with potential cost claims.

Steve is adamant that this debacle will be on the Consortium's nickel.

#### Modules

SCE&G has no intention to publicly discuss ... schedule delay / cost issues on modules ... until the Consortium comes forward with an actual schedule extension request and/or a cost claim.

Doing so would only serve to get them in a jam with the PSC.

Steve has instructed his team (to only) speak publicly ... in terms of bringing the Units online in 2017 and 2018 ... he no longer cares to talk about Mar 2017 and May 2018.

Per the BLRA, SCE&G enjoys an 18 month grace period ... on all dates filed and approved by the PSC.

-----

Production work in Lake Charles is still in the ditch.

Shaw Nuclear has a PO with Shaw Modular for fabrication of modules ... both entities are profit centers.

The trip was very enlightening ... Archie and I were amazed at how poor they communicate and the commercial friction that seems to exist between them.

Westinghouse is not clean either ... as designer ... there is still room for improvement on their ability to support the Lake Charles effort.

SCE&G / SCPSA needs to be in Lake Charles monthly (at a minimum) ... it's going to take that level of hand holding.

I will be pushing Archie in this direction.

Archie plans to call a high-level meeting (near term) ... and will require Danny Roderick (new Westinghouse CEO) to attend.

-----

CB&I acquisition of Shaw ... on track to close mid Feb.

The project teams (VC Summer and Vogtle) are due in Houston next week ... to meet then new owners.

Bill Fox (Shaw) believes CB&I management will be a big plus for the project ... I offered our support to help ensure that.

You, RM, Kevin and Steve ... really need to visit them CB&I shortly after closing.

Some big changes are needed ... if module production is ever going to get on track.

Hope I didn't ramble too badly.

Don't hesitate to call ... if you want to talk before Monday.

Thanks,

mrc

---

**From:** Carter, Lonnie  
**Sent:** Friday, January 11, 2013 5:56 PM  
**To:** Crosby, Michael; Singletary, R.M.  
**Cc:** Peterson, Elaine; Brogdon, James; Ritter, Suzanne; Varn, Laura; Kizer, Richard; Pelcher, Steve; CHERRY, WILLIAM (WILLIAM.CHERRY@scana.com)  
**Subject:** RE: 8K

R.M. and Mike,

Are we saying that we will pour FNC under a PAR? If we are just saying this is an option, then at least for our disclosure we need to make clear that decision is still under consideration.

If we are seriously considering going this route, I need to understand our risks, costs, benefits,...

Is this something SCANA can decide without our approval?

Thanks,  
 Lonnie

---

**From:** Crosby, Michael  
**Sent:** Friday, January 11, 2013 11:44 AM  
**To:** Singletary, R.M.  
**Cc:** Carter, Lonnie; Peterson, Elaine; Brogdon, James; Ritter, Suzanne; Varn, Laura; Kizer, Richard; Pelcher, Steve; CHERRY, WILLIAM (WILLIAM.CHERRY@scana.com)  
**Subject:** FW: 8K

RM,

See below for SCE&G 8K filing ... note from Steve Byrne.

mrc

---

**From:** BYRNE, STEPHEN A [mailto:SBYRNE@scana.com]  
**Sent:** Friday, January 11, 2013 11:36 AM

**To:** Crosby, Michael  
**Subject:** FW: 8K

Mike,

This is the language for the 8K filed today.

Steve

#### Item 8.01. Other Events

In its third quarter 2012 status report to the South Carolina Public Service Commission under the Base Load Review Act, South Carolina Electric & Gas Company (SCE&G) stated that the initial pouring of the nuclear island basemat, sometimes referred to as first nuclear concrete (FNC), had been delayed pending resolution of a technical issue related to concrete reinforcement in elevator pit and sump areas in the auxiliary building at SCE&G's new nuclear construction site.

Following discussions with the staff of the Nuclear Regulatory Commission (NRC) involving SCE&G and the contractors for the new nuclear units, Westinghouse Electric Company and The Shaw Group, Inc., SCE&G has decided to file a license amendment request (LAR) and a preliminary amendment request (PAR) with the NRC to change the licensed design as it relates to reinforcing bars in the elevator pit and sump areas.

It is anticipated that the LAR, with a request for expedited treatment, will be ready for submission to the NRC near the end of January 2013 and that the administrative process relating to the LAR will require several months to complete. The PAR will be filed simultaneously, and if the NRC staff does not object to the path laid out in the PAR, work on site under the PAR could begin in early February 2013 for the reinforcing bar reconfiguration, while the LAR is being reviewed and processed. The FNC pour could take place in the first quarter of 2013, based upon an expedited approval of the LAR by the NRC staff. It is not anticipated that the resolution of this issue will cause a delay in the commercial operation of the two new nuclear units in 2017 and 2018.

**Crosby, Michael**

---

**From:** Crosby, Michael  
**Sent:** Wednesday, February 05, 2014 10:51 AM  
**To:** Singletary, R.M.; Carter, Lonnie  
**Cc:** 'CHERRY, WILLIAM (WILLIAM.CHERRY@scana.com)'  
**Subject:** VC Summer

RM / Lonnie;

I spent the last 2 days at VCS ... reconnecting in the wake of the defunct Duke deal.

**Module CA20**

- Current projected hook: **Mar 17 – 20, 2014** ... 2 month slip from the Oct 2 CEO promise
  - I believe March is achievable ... but the Module Assembly Building (MAB) folks will not get any rest ... they are working hard.
    - Biggest issue ... has been the time it takes to get submodules out of Level D.

**Module CA01**

- Current projected hook: **Jul 18 – Sep 18, 2014** ... which is based on the Oct 2 CEO promise
  - CA01 is in the toilet ... still have not received any submodules from Lake Charles
    - 19 submodules now past due (based on Oct 2 promise)
    - July hook ... not realistic
    - September hook ... will take Devine intervention
      - Sep hook ... pushes CA03 BLRA Milestone to +18 months
        - If Sep is not achieved ... SCE&G will be in major hot water with PSC
  - Lake Charles self-imposed a Stop Work Order ... early Jan 2014
    - LC lost procedural control of welding procedures ... and shut themselves down
      - LC has worked its way through this issue now
      - Stop Work Order ... is being lifted in phases starting this week
        - This should allow VC Summer shipments to begin
      - For the record ... LC was 14 submodules past due before the Stop Work Order was issued
        - I'm not sure you can slow down "zero" progress ... but this didn't help
  - Lake Charles NRC Inspection ... 12 man team currently on site LC this week
    - Follow-up inspection ... regarding the previous Chilled Work Environment issue
      - Self-imposed Stop Work Order ... will obviously be reviewed as well

As I recall ... WEC was a no-show at CEO hangar meeting #2 ... Dec 17.

It's time to schedule CEO meeting #3 ... they both really need to be there.

I believe Kevin is already on it ... per Amy ... Paula Rowland has called and is looking at dates in March ... the sooner the better.

mrc



MAR 05, 2014

Amf

**CHERRY, WILLIAM**

From: Crosby, Michael [michael.crosby@santeecooper.com]  
 Sent: Wednesday, March 05, 2014 8:51 AM  
 To: Carter, Lonnie  
 Cc: CHERRY, WILLIAM  
 Subject: Steve Byrne Call this afternoon

GERGE WENICAL  
 SMITH, CURRIE ATL

Lonnie,

Hope all is well on your trip.

I am at the site ... but will be dialing in at 4pm this afternoon.

Dial-in number:

- Number: 1-877-635-0568
- Enter Conference Code: 823 698 177  
2518413652

LEADER 70572 #  
 PIN 2840 #

Following are a few thoughts for the call.

**Yellow highlights** are the major talking points ... info that follows each **highlight** ... builds the case:

**Consortium EM ... not engaged ... at least not to the point that has produced results for VC Summer.**

- Sep 25 letter quotes
  - Commit our support to the Project in achieving the schedule provided herein.
- Oct 2 letter quotes
  - Consortium is taking additional management measures to add certainty to this schedule.
  - Weekly CBI senior management review and monitoring of Lake Charles progress against the plan has been established.
  - We commit our support to the Project in achieving the schedules provided herein.
- Lake Charles ... nothing has changed
  - CA20 ... hook Jan 24
    - It will be a miracle if on hook by Mar 31.
    - Level D (32 pieces) – gave site control ... but killed schedule

- Chronology of missed CA20 hook dates
  - Hook Nov 18, 2011: Original EPC Schedule
  - Hook Jan 19, 2013: COL – Settlement Agreement
  - Hook Oct 31, 2013: based on Apr 9, 2013 schedule
  - Hook Jan 24, 2014: based on Sep 25, letter
- CA01 promised deliveries per Oct 2 letter
  - Begin deliveries Nov 3, 2013 ... complete by Jul 18, 2014
  - To date ... 0 of 47 received

#### It's past time to end the Lake Charles Debacle.

- Sub-module deliveries are going to kill the project
  - CBI Power (Charlotte) ... has proffered a solution
    - Seed control of LC to Charlotte (DePierro / Lyash are committed to this)
  - Does not have support of The Woodlands ??

#### Site Construction Management ... does not have proper resources for Module Assembly Building (MAB) .

- EPC signed May 2008 ... nearly 6 yrs later ... still do not have proper resources to work both ends of building.
- If we had CA01 submodules on site now ... we could not work them without taking resources away from CA20.
- CA01 thru CA05 + CA20 ...  $\times 2 = 12$  structural modules
  - Consortium is assembling them ... 1 at a time
    - We will never be successful on this plan

#### Progress Payments ... need to be adjusted for project delays.

- Sep 25 letter - promised to forward plan to levelize cash flow within 60 days
  - Plan never received
  - For info ... 2013 Progress Payments = \$80,054,940 (100%)

#### A sad reality ...

- Jun 2013: SCE&G announces ... 1 year Module Delay

- **1 year later ... if we are lucky ... we will have set 1 minimally configured module set on its foundation.**

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Crosby, Michael

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From: Carter, Lonnie  
 Sent: Wednesday, September 03, 2014 2:14 PM  
 To: Crosby, Michael; Baxley, Mike; Pelcher, Steve; Armfield, Jeff  
 Subject: Fwd:

Let's discuss.

Begin forwarded message:

From: "MARSH, KEVIN B" <[KMARSH@scana.com](mailto:KMARSH@scana.com)>  
 Date: September 3, 2014 at 2:06:00 PM EDT  
 To: "Carter, Lonnie" <[lonnie.carter@santeecooper.com](mailto:lonnie.carter@santeecooper.com)>

Lonnie,

I met with my team this morning on a number of nuclear matters and wanted to share our thoughts with you:

1. We discussed the preliminary number given to us late last week by the consortium for delay costs associated with the revised baseline schedule. As you and I discussed last week, this number is very preliminary and will be the basis for lengthy negotiations that will take place over the next several months. I am confident that the number will change as we work to secure a more definite commitment from the consortium with more of their "skin in the game". Since we have already disclosed that we expected to receive a preliminary number, that there would be negotiations around it, and that we plan to complete those negotiations by year end, we don't believe any additional disclosures about the dollar amount of the preliminary cost delay number are necessary. I know that you are planning a bond financing later this month, so I wanted share our thoughts with you and your team with the goal of making our financial disclosures consistent.
2. Our team will begin a review of the delay cost financial information as part of the overall evaluation of the revised baseline schedule. We welcome the assistance of your team in this process. Once we have reviewed the numbers and the schedule, we will be in a position to develop our strategy for negotiations with the consortium that will begin on October 13<sup>th</sup>.
3. We are ready to move forward with hiring/engaging an additional resource with significant construction expertise to assist us with evaluating the construction schedule and project status. I believe having this person on our staff vs. working as a consultant will avoid conflicts with the consortium on proprietary matters. I would recommend that Jeff Archie work with Mike Crosby to help identify potential candidates for this role.



4. Your legal team asked George Wenick

Redacted - Privileged

**Redacted - Privileged**

I would be pleased to discuss any of these issues further as we both continue to work hard keep our project moving in the right direction. I appreciate and welcome your thoughts.

Kevin

\*\*\*\*\*  
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• PR  
• Files Not - Manual

**Crosby, Michael**

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**From:** Carter, Lonnie  
**Sent:** Monday, September 08, 2014 6:13 PM  
**To:** Baxley, Mike; Pelcher, Steve; Crosby, Michael  
**Subject:** FW: Summer Units 2 & 3

I just sent this to Kevin. I made a few minor changes.

---

**From:** Carter, Lonnie  
**Sent:** Monday, September 08, 2014 6:12 PM  
**To:** 'MARSH, KEVIN B'  
**Subject:** RE: Summer Units 2 & 3

Kevin:

Thank you for your email concerning management of the new nuclear project and our negotiations with the Consortium.

1. Santee Cooper is in agreement on moving forward to engage additional resources in construction management. I agree that Jeff Archie and Michael Crosby work together to develop a job description and placement for you and I to concur. This will allow us to better identify potential candidates. My thinking is that the first task for this individual will be to determine the scope of the task at hand, and the number of personnel/resources needed.
2. With respect to negotiating a new project schedule with the Consortium, my sense is that neither the Owners nor the Consortium have any real confidence that the proposed rollout schedule that the Consortium shared with the Owners on August 1st is achievable. I am concerned that we have become tied to artificial dates, both past and future, often driven by disclosure considerations. The Owners and the Consortium need a schedule that we all have confidence can be achieved and thereby hold the Consortium accountable to achieving milestones. Since the Consortium is so far behind schedule, they should already take steps to mitigate any further delays.

For the Owners to have real conversations and negotiations with the Consortium, we must first complete a detailed review of the schedule information provided based upon the critical path forward, which necessarily includes a consideration of the Shield Building. This would include collectively studying and discussing the June 2019 IPS and supporting Shield Building critical path documentation for the purpose of developing a list of concerns that need to be addressed by the Consortium. Redacted - Privileged we should ask George Wenick and Frank Elmore Redacted - Privileged

**Redacted - Privileged**  
**Redacted - Privileged**

Redacted - Privileged

These two points of information would form the basis for further conversations and negotiations with the Consortium going forward.

As I shared with you before, to the extent that the Consortium is requesting sums from Owners to which they are not presently entitled, Santee Cooper will not agree to pay such amounts absent new and substantial consideration to support such payments. Rewarding the Consortium for poor performance and missed



schedules would be counterproductive. Although Santee Cooper is open as what new and substantial consideration might look like, a Toshiba Performance Guaranty, unbounded by those provisions in the EPC limiting the Consortium's liability, might be worth considering.

3. With respect to disclosure, as you are aware, Santee Cooper intends to issue refunding bonds next month, and must finalize related disclosure documents this week. Our various stakeholders are already aware from the previous disclosure that there has been a delay in construction, and are awaiting further information on the financial component of that delay. We dispute the Consortium's entitlement to almost all of the additional costs (with the exception of agreed site layout and cyber security modifications, less than \$55M which remains to be negotiated), and do not intend to pay any further sum unless we are convinced by the Consortium of their right to payment under the EPC agreement and the accuracy of the requested amounts. Based upon legal advice, Redacted - Privileged

# Redacted - Privileged

Please remember that I am not available for a meeting with the Consortium on October 13 due to longstanding schedule commitments. I look forward to discussing these various issues with you and will make my schedule available to that end. I agree with you that we need a strategy for our further conversations and negotiations with the Consortium because time is now of the essence for this Project.

Thanks,

Lonnie

---

**From:** MARSH, KEVIN B [<mailto:KMARSH@scana.com>]  
**Sent:** Wednesday, September 03, 2014 2:06 PM  
**To:** Carter, Lonnie  
**Subject:**

Lonnie,

I met with my team this morning on a number of nuclear matters and wanted to share our thoughts with you:

1. We discussed the preliminary number given to us late last week by the consortium for delay costs associated with the revised baseline schedule. As you and I discussed last week, this number is very preliminary and will be the basis for lengthy negotiations that will take place over the next several months. I am confident that the number will change as we work to secure a more definite commitment from the consortium with more of their "skin in the game". Since we have already disclosed that we expected to receive a preliminary number, that there would be negotiations around it, and that we plan to complete those negotiations by year end, we don't believe any additional disclosures about the dollar amount of the preliminary cost delay number are necessary. I know that you are planning a bond financing later this month, so I wanted share our thoughts with you and your team with the goal of making our financial disclosures consistent.



2. Our team will begin a review of the delay cost financial information as part of the overall evaluation of the revised baseline schedule. We welcome the assistance of your team in this process. Once we have reviewed the numbers and the schedule, we will be in a position to develop our strategy for negotiations with the consortium that will begin on October 13<sup>th</sup>.
3. We are ready to move forward with hiring/engaging an additional resource with significant construction expertise to assist us with evaluating the construction schedule and project status. I believe having this person on our staff vs. working as a consultant will avoid conflicts with the consortium on proprietary matters. I would recommend that Jeff Archie work with Mike Crosby to help identify potential candidates for this role.
4. Your legal team asked George Wenick Redacted - Privileged

# Redacted - Privileged

I would be pleased to discuss any of these issues further as we both continue to work hard keep our project moving in the right direction. I appreciate and welcome your thoughts.

Kevin

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**Crosby, Michael**

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**From:** Crosby, Michael  
**Sent:** Monday, October 13, 2014 8:39 PM  
**To:** Carter, Lonnie; Baxley, Mike; Pelcher, Steve; Cherry Marion  
**Subject:** Rebaseline Schedule / EAC - Meeting #1

My notes from today's meeting ... it was cordial and benign ... Meeting #2 (Nov 6) I highly suspect will be different.

#### Attendees

Kevin Marsh, Steve Byrne, Jeff Archie, Michael Crosby  
 Westinghouse: Danny Roderick, Mark Marano, Chris Levesque  
 CB&I: Phil Asherman, Pat Mullins, Jeff Lyash, Luke Scorsone

#### Kevin's opening remarks:

- Appreciate everyone taking the time to meet today
- This is the most important project going on for both of our companies
- We knew this was a long term project when we started ... and that there would be issues and disagreements that would arise along the way
- Our goal has always been to resolve those issues in a fair and reasonable fashion ... and I think both sides have worked hard to accomplish that to this point
- Latest announced delays and related cost increase are our biggest challenge to date
- Financial investors are concerned about the continued delays and cost increases ... they do not like uncertainty
  - We have told them we would be negotiating with the Consortium with the goal of resolving our issues
- We know the Consortium is concerned with our withholding of payments ... our position on that is based on our belief that the payment schedule is an integral part of the construction contract along with the construction milestones and agreed upon delivery dates ... since the Consortium is not meeting those dates we are not obligated to make payments until an appropriate amount of progress has been achieved
- Payments related to delays in fabrication and delivery of submodules will continue to be withheld in accordance with the Consortium's agreement in the last change order to absorb any additional costs associated with the submodule delays



- We are willing to discuss resumption of the Progress Payments as a part of any agreement we reach in these negotiations
- We want to focus our negotiations on the following substantial completion dates
  - Unit 2 – December 2018
  - Unit 3 – December 2019
- We want to continue to focus the site-work schedule for the completion of the first new unit on Sep 2018
- We believe that our contract provides for adjustments to the escalation rates for costs that fall in the firm with fixed escalation category ... and there is little doubt that the applicable market rates continue to be well below the stated amount in the contract and would support an adjustment downward
- We want to complete our negotiations by Dec 1, 2014 ... and we will give our full attention to achieving that goal
- We are going to be required to make a filing with our Public Service Commission due to the fact that we will exceed the 18 month grace period on a number of our approved milestones
- We plan to make that filing ... at or near the end of the year ... and need to know if we have reached a successful agreement on the revised schedule and related cost that we can present to the Commission ... or if we have to go the route of litigation to protect our customers ... either way we need to make a filing.
- Going beyond SCE&Gs 55% share ... or \$6.3B ... will not be acceptable to the Commission ... and in order to get a vote of approval on the schedule delay and any increased cost ... the combined impact of the construction cost, escalation and Owners Costs cannot exceed **\$6.0B.**
- At the last meeting we asked the Consortium to think about what they could do to indicate to us its confidence in the new schedule ... and how the Consortium might be able to put more skin in the game.
- We would propose ... in return for accepting a new construction schedule along with an agreed amount of additional cost ... the Consortium would be at risk for **additional Liquidated Damages of \$250M** for not achieving the substantial completion dates of Dec 2018 and Dec 2019 (that is, total LDs for both Units would cap at \$405.5M)
- Likewise if the Consortium met those completion dates ... we would pay an incentive award of **\$250M** (total reward for both Units).
- In closing ... we've always tried to avoid litigation in our negotiations thus far ... and believe that it would certainly be beneficial to both of us if we could do that again.



### Primary questions from the Consortium:

- Phil Asherman was initially focused on the re-start of Progress Payments and wanted to make sure that CB&I got "caught-up" as a function of restart. It was apparent that Phil did not completely understand the reason we stopped payments in August 2014
  - Kevin assured Phil that re-start and re-scheduling of Progress Payments was on the table for this negotiation.
- Phil Asherman asked ... "if a deal cannot be achieved - is litigation the (only) next option?"
  - Kevin stated that if the Consortium could not agree to a path forward (somewhere) within the proposed parameters (outlined above) ... the Owners would have no choice and would litigate to protect their customers.
- Danny Roderick was focused on understanding the required make-up of the proposed ... not to exceed \$6.0B (55%) project cap.
  - Kevin explained the \$6.0B would have to be SCE&Gs all-in project cost ... which included escalation, Owners costs, AFUDC, transmission, etc.
    - Danny asked for more help to understand this target.
    - Kevin agreed to have staff provide this detail.
- Jeff Lyash questioned the bonus pay-out for an on-time finish. Jeff said the Unit 2 date (Dec 2018) contained a lot of risk ... but was less concerned about the Unit 3 date (Dec 2019.)
  - Kevin stated the bonus pay-out could be negotiated ... but would have to be structured to incentivize the on-time completion of Unit 3 (Dec 2019.)

→ PF AGREEMENT - TO DATE 1.4.16 ... KEVIN + STEVE TALKED THIS  
 LEVERAGING / THROUGHOUT - NEED TO FOCUS ON  
 EXECUTION NOT COMMERCIAL ISSUES.

### Observations

- Meeting was high-level and very cordial.
- Roderick / Asherman seemed very willing to study Kevin's proposed deal parameters.
  - However ... in our post meeting (Owners only) we do not believe Roderick or Asherman fully understood just how challenging the \$6.0B cap will be considering the \$1.2B EAC.

- Roderick continued to use the term “regulatory change” at every opportunity during the meeting.
- Steve Byrne and Jeff Archie ... noted that Luke Scorsone seemed extremely subdued.
- Per my notes ... only one rock was thrown:
  - Pat Mullins stated that CB&I was quite capable of completing this project on a defined schedule ... but needed a complete design.

## Next Meeting

- Nov 6, 2014 ... at SCANA HQ ... I will pass this on to Amy.

Lonnie,

I included the following chart in the email I forwarded you last Friday.

	PSC Filing March 2009 (000s)	PSC Filing June 2014 (000s)
Gross Construction	\$ 6,313,376	\$ 5,606,679
AFUDC	\$ (264,289)	\$ (265,589)
Transmission Projects	\$ (638,020)	\$ (362,918)
55%	\$ 5,411,067	\$ 4,978,172
100%	\$ 9,838,304	\$ 9,051,222
	100% (000s)	
March 2009 PSC Filing	\$ 9,838,304	
June 2014 PSC Filing	\$ (9,051,222)	
	\$ 787,082	
Est. OC Increase	\$ (400,000)	
Available for Negotiation	\$ 387,082	

\*\*\* All numbers include escalation

Marion and I ... were trying to calculate how much money ... might be on the table for negotiation ... with a \$6.3B (55%) project cap ... we came up with \$387M.

After talking with Kevin and Steve today ... they were both scratching their heads trying to remember why they reported such a high Transmission number (\$638,020) back in 2009.

Kevin is following up with Keller on this matter ... but regardless ... SCE&Gs transmission spend is going to be a lot less ... which affects the calculation above.

Kevin has Carlette working up the \$6.0B project cap numbers which will ultimately be shared with the Consortium ... but the following chart is another attempt at the calculation while we wait on Carlette.

Also ... in my pre-meeting with Kevin and Steve ... Kevin agreed NOT to put the full \$6.3B on the table ... as you've already read in the meeting notes ... he gave the Consortium a target of \$6.0B.

	PSC Filing March 2009 (000s)	PSC Filing June 2014 (000s)
Gross Construction	\$ 6,313,376	\$ 5,606,679
SCE&G Pad ... On-Time Bonus, ETC	\$ (313,376)	
AFUDC	\$ (264,289)	\$ (265,589)
Transmission Projects	\$ (362,918)	\$ (362,918)
55%	\$ 5,372,793	\$ 4,978,172
100%	\$ 9,768,715	\$ 9,051,222
	100% (000s)	
March 2009 PSC Filing	\$ 9,768,715	
June 2014 PSC Filing	\$ (9,051,222)	
	\$ 717,493	
Owners Cost Increase Est.	\$ (400,000)	
Available for Negotiation	\$ 317,493	
*** All numbers include escalation		

Hopefully ... the above numbers are closer to correct ... we will see.

Lastly, in terms of entitlement ... as you recall from Friday's email ... Carlette came up with a preliminary \$422 ... Marion and I came up with a preliminary \$224. I shared this difference with Kevin and Steve today ... they understood and are good with continuing these discussions.



**Crosby, Michael**

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**From:** BYRNE, STEPHEN A <SBYRNE@scana.com>  
**Sent:** Tuesday, November 04, 2014 10:22 AM  
**To:** Crosby, Michael  
**Cc:** ARCHIE, JEFF - International  
**Subject:** RE: outside look at New Nuclear  
**Attachments:** Mickey Bob CV 2013.docx

Mike,

I don't disagree that the entity to offer guidance and advice doesn't have to have a nuclear background, in fact it may provide some benefit. Both of the entities we have contacted so far have mega project experience outside nuclear and have some recent nuclear experience. We are also looking for individuals who could come in, either contract or direct hire, and make an impact in the near term. I have attached a resume of one such individual, a former Fluor executive. We need to find the right balance getting hands dirty and high level advice.

Steve

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**From:** Crosby, Michael [mailto:michael.crosby@santeecooper.com]  
**Sent:** Monday, November 03, 2014 5:43 PM  
**To:** BYRNE, STEPHEN A  
**Subject:** RE: outside look at New Nuclear

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Steve,

I am certainly open to considering any candidates that you think appropriate; however, my initial concept for this was to pursue likely (a name brand) A&E firm ... one with recent power plant design and construction experience.

Firms ... or individuals from firms like ... S&L, Worley Parsons, etc. ... who have successfully designed and built large power plants recently.

I know nuclear experience is very important to SCE&G and for many good reasons ... all of which I agree.

But frankly, I think SCE&G does a superb job managing the nuclear components of this project ... to include giving the Consortium proper guidance when and as needed.

To date, the deficit that I've witnessed on the project ... Owners to some degree but Consortium for sure ... is much more basic and fundamental. Consider these questions (to just mention a few):

1. How do you effectively perform (large) contract management in manner that protects both cost and schedule ... what do you look for ... what do you go after ... to gain improvements.
2. What does a comprehensive (resource loaded) construction schedule look like ... do we have one.
3. How do you effectively freeze engineering for the good of the project.
4. How do you properly manage the engineering hand-off to procurement ... and then to construction.
5. How do you organize and choreograph 2 or 3 thousand site people ...engineers, superintendents, craft labor, etc ... to work efficiently ... that is a sustained performance factor somewhere way south of 1.46 ☺
6. When do you staff up ... when should you staff down ... to be more efficient.
7. What are proper (and efficient) ratios for direct to indirect labor ... for field non-manual to craft labor.

Steve, I believe some basic (expert) guidance and advice in these areas would go a long ways towards helping us better manage the Consortium as a whole.

I'm not convinced the firm, individual or individuals needed at this point have to have deep nuclear roots ... just deep ... recent large power plant ... construction management experience and skills.

Food for thought ... all tendered in a loving spirit.

Happy to talk at your convenience.

Thanks,

Michael

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**From:** BYRNE, STEPHEN A [<mailto:SBYRNE@scana.com>]

**Sent:** Friday, October 31, 2014 11:50 AM

**To:** MARSH, KEVIN B; ADDISON, JIMMY E; Crosby, Michael; CANNON, MARK R; JONES, RONALD A

**Cc:** ARCHIE, JEFFREY B

**Subject:** outside look at New Nuclear

We have previously discussed getting a third party look at our schedule and onsite efficiencies at VC Summer construction project. We are trying to find someone with mega project experience. Our previous experience with Pricewaterhouse Coopers was not good. NextEra (Florida Power & Light) indicated that they had a similar issue on their

extended power uprate project at St Lucie and brought in Highbridge to advise. We floated the idea by WEC and CBI on our Friday call and they did not object, they identified a concern with intellectual property, but thought that it could be worked through. CBI has experience with Highbridge and find them acceptable, WEC had a bad experience with Highbridge previously. We would like to vet 3 or 4 companies with the goal of retaining one if we believe there will be value added. I think we can eliminate PWC and Highbridge. If you have ideas we would be open. So far this is what we have:

Jeff and I spoke to at Andy Smart at Atkins Global. They are a UK based company with a North American office in Charlotte and were recommended by EPRI. They claim to be an 18,000 person consultancy with mega project experience at the International Thermonuclear Experimental Reactor (ITER) or fusion prototype in France and the EdF new nuclear build project in the UK. They also "designed" the London Olympics, were involved in the runway expansion at Atlanta's Hartsfield Jackson airport and Hoover dam bypass project.

[www.atkinsglobal.com](http://www.atkinsglobal.com)

I spoke with Stewart Redding at Southern Cross Management Services Inc. They are a Canadian company, 14 years old, 25 people HQ in Waterloo with offices in Toronto, no biz in US currently. They claim Mega project experience on the Bruce Power refurbishment in Ontario, Canada and the Long Harbor mine project also in Canada.

[www.southerncross.ca](http://www.southerncross.ca)

Steve

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Crosby, Michael

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From: Crosby, Michael  
 Sent: Saturday, September 19, 2015 6:52 PM  
 To: sbyrne@scana.com  
 Cc: Carter, Lonnie; Baxley, Mike; Pelcher, Steve; Cherry, Marion; Cherry, Marion  
 Subject: term sheet issues

Steve,

I appreciate you working on this over the weekend.

If you reach out to Danny ... I think it is important to make the following points:

Thanks,  
 Michael

## 1. Project Schedule

- **THE most important issue going forward**
- All negotiations ... counter-offers ... and contract structure going forward ... have to incentivize the Consortium to adhere to the schedule and complete the project in a timely manner.
- Bechtel Assessment
  - Deal does not go forward without the completed assessment
    - This requires the Consortium's full support
    - **Not supporting this effort will only delay the deal.**
- **An Owner's Engineer project model will be required going forward**
  - The EPC was originally sold including this service ... but unfortunately the AP1000 design was not completed in a timely manner ... the project was never properly integrated and scheduled ... and significant commercial issues developed over time dividing the Consortium and severely delaying the project.
  - This can't happen again.
  - To ensure the proper integration of the project going forward ... to include providing (true) Owner visibility of the issues ... and the timely completion of all engineering, procurement, and construction activities ... an Owner's engineer will be installed on the project to:
    - Assist Owner / Consortium with project controls and oversight
    - Advise Owners on the true status of all EPC issues

- Help Consortium manage and resolve issues as needed.

## 2. Contract Fixed Price Option

- Needs to be fully understood
- Must incorporate a definitive (all inclusive) scope of work
  - **Best to get WEC to state clearly "what not is included" in Fixed Price**

## 3. Delay Liquidated Damages

- **Have to incentivize schedule assurance / project completion**
- \$500M per Unit (minimum)

## 4. CBI Release

- Certainly possible ... but not imminent
  - **Toshiba Meeting required**

-----Original Message-----

From: BYRNE, STEPHEN A [<mailto:SBYRNE@scana.com>]

Sent: Saturday, September 19, 2015 2:50 PM

To: Crosby, Michael; Carter, Lonnie; JONES, RONALD A; SMITH, ABNEY A JR; Marion Cherry ([wiliam.cherry@scana.com](mailto:wiliam.cherry@scana.com)); WALKER, CARLETTE L; KOCHEMS, KEVIN R; BROWNE, KENNETH JEROME; MARSH, KEVIN B

Cc: BYNUM, ALVIS J JR; LINDSAY, RONALD; Baxley, Mike

Subject: term sheet issues

Help me with anything I forgot. I would like to send the list to Danny Roderick this weekend.

Steve

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From: BYNUM, ALVIS J JR

Sent: Friday, September 18, 2015 8:07 PM

To: BYRNE, STEPHEN A

Subject:

# Redacted - Privileged

# Redacted - Privileged

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① w/ Carol Rau  
OCT 30, 2015, 10AM



Lonnie N. Carter  
President and  
Chief Executive Officer  
(843) 781-7009  
fax: (843) 781-7007  
lcarter@santeecooper.com

October 29, 2015

Mr. Kevin B. Marsh  
Chairman & CEO  
SCANA Corporation  
100 SCANA Parkway, Building D  
Cayce, SC 29033

Dear Kevin,

- NEED
- BECHTEL ONE CHART REPRESENTING TO SCANA LOAD
- MINIMUM
- HOPEFUL TOTAL
- E-P-C-
- GPC AMENDMENTS
- FLUOR
- CARL TO DISCUSS w/ CAROL
- NEED TO GET ADJUSTMENT TO WORKING
- NEED TO HAVE BECHTEL OVERSIGHT ASG

The Santee Cooper team and I would like to thank you for your leadership over the past several weeks in helping us through the WEC negotiation. There were few times when we were not completely aligned on the issues, and I am proud that each team kept their eye on the ball and collectively managed to get the EPC Agreement in a much better position moving forward.

As you know, we still have significant work ahead of us to keep this new momentum moving in the right direction. WEC and Fluor have challenging work ahead of them to coordinate themselves and validate our schedule. Also, WEC particularly has the significant upcoming challenge to unravel the leftover CB&I commercial issues that reside at each of the critical path submodule fabrication shops.

An extremely important next step for us is to quickly get the Bechtel assessment in-house. Once in-house, our teams can evaluate the recommendations, prioritize the recommendations that we determine need addressing, and develop an action plan and schedule. At the conclusion of Bechtel's presentation last Thursday, I was concerned that some of our team saw the presentation as a Bechtel sales pitch. While no doubt Bechtel would like more business from us, much of what they had to say resonates with me. Based on what we know today, some voids exist in the Project. The AP1000 projects were WEC's first stab at delivering an EPC coordinated package. Accordingly, WEC depended on Stone & Webster to integrate the project, and for many reasons—including WEC's design deficit—the Consortium failed on delivery of the overall EPC project coordination. What Bechtel told us was, in the absence of WEC and Stone & Webster being able to provide true mega-project integration which includes properly managing themselves, some party (in this case the Owners) had to be in a position to recognize that deficiency and act upon it promptly.

We are at a key point in coming to terms with our future engagement and management of the Project. Whether we use Bechtel, another consultant, "owners' engineer," our own employees or some combination is a key decision before the Owners. Now is the best opportunity we will have to make that determination.

Mr. Kevin B. Marsh  
October 29, 2015  
Page Two

WEC will now depend on Fluor to provide construction management and most likely overall project integration services. We have a real need and opportunity to re-configure our current project management team, which will necessarily include the addition of outside EPC management professionals in some capacity, to position ourselves to better engage and recognize issues as they arise, and influence the process in real time going forward.

Kevin, again I want to personally thank you for your leadership on this project, including the recent WEC negotiations. Your sound judgment and focus have been key to our good progress. I would like to meet with you soon to discuss the Bechtel assessment and collectively plan a path forward for improved project management. As with the recent negotiations, I will make this a priority schedule item.

Sincerely,



Lonnie N. Carter

/hlm

SCANA / SC Executive Call  
Wed, Dec 7, 2016, 07:30AM

Action items recorded from call:

1. Toshiba Meeting
  - a. Roderick OK with meeting ... likely around 2<sup>nd</sup> week Jan 2017.
    - i. Roderick to reach out to Kevin Marsh with dates.
2. Project Metrics
  - a. Santee Cooper submitted draft metrics to SCANA Dec 5, 2016
    - i. Jeff & Ron to review same and provide feedback to Santee Cooper ... review will include consult with Kenny Jackson to determine if any adjustments are required so that metrics may be shared with ORS.
3. Bechtel Report vs Couick
  - a. Kevin to reach out to Mike Couick upon Couick's return from conference in Asheville.
    - i. Kevin has completed this item and closed the loop with Lonnie.
4. Vitale Study
  - a. Study entering week 3.
    - i. Ron to provide updates on this effort and share formal report with group upon receipt ... receipt date TBD.
      1. Byrne cautioned report will be treated in confidence.
5. CORB recommended consultants (Matt Parsons, Randy McAden, Gary Harland)
  - a. Kevin instructed Ron to on-board the 3 consultants as soon as possible ... consultants will be working for SCANA (not WEC).
6. Intellectual Property
  - a. Change order has been executed by SCANA ... and provides for a 60 day period to populate escrow account.
    - i. Who from SCANA will be lead on this effort: Jeff contemplated that Al Bynum would be tapped to serve as lead to ensure IP account is properly populated over the 60 day period.
    - ii. What is SCANA plan to complete an "engineering based" audit to confirm escrow is adequate to complete project should WEC / Toshiba default: Jeff to study concern and provide plan.